This listing of claims will replace all prior versions, and listings, of claims in the application:

In the Claims:

44. (Currently Amended) A method of processing received telemetry signals in an implantable medical device, comprising:

receiving a serial data stream from a demodulator;

translating the received serial data stream into parallel accessible words;

verifying message integrity;

detecting message type; and

acknowledging the received message, wherein the above steps are performed in a telemetry processor distinct from a main processor of the device that adjusts therapy based on the received message.

45. (Original) The method as in claim 44, further comprising receiving a wake-up burst that activates the telemetry processor.

46. (Original) The method as in claim 44, further comprising shifting the data stream through cycle redundancy check logic and verifying a complete message has been received by the cycle redundancy check logic.

47. (Currently amended) The method as in claim 44, further comprising notifying [a] the main processor if an application message has been received by the telemetry processor.

48. (Original) The method as in claim 44 wherein the acknowledgement is transmitted upon receipt of a complete and validated message.

49. (Original) The method as in claim 44 wherein the acknowledgement is a negative acknowledgement transmitted upon receipt of an incomplete and not validated message.

50. (Original) The method as in claim 44 wherein the message type is selected from the group consisting of: acknowledgement, negative acknowledgement, application, and waveform.

51. (Withdrawn)

52. (Withdrawn)

53. (Withdrawn)

54. (Withdrawn)

55. (Withdrawn)

56. (Currently amended) A method of processing received telemetry signals by a telemetry processor in an implantable medical device, comprising:

receiving a serial data stream from a demodulator;

translating the received serial data stream into parallel accessible words;

verifying whether a message address of a received message has a valid cycle redundancy check;

verifying whether the message was intended for the implantable medical device;

detecting a message type; and

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acknowledging the received message, wherein the above steps are performed in a telemetry processor distinct from a main processor of the device that adjusts therapy based on the received message.

57. (Previously presented) The method as in claim 56, further comprising receiving a wake-up burst that activates the telemetry processor.

58. (Currently amended) The method as in claim 56, further comprising notifying [a] the main processor if an application message has been received.

59. (Previously presented) The method as in claim 56, wherein the acknowledgement is transmitted upon receipt of a complete and validated message.

60. (Previously presented) The method as in claim 56, wherein the acknowledgement is a negative acknowledgement transmitted upon receipt of an incomplete and not validated message.

61. (Previously presented) The method as in claim 56, wherein the message type is selected from the group consisting of: acknowledgement, negative acknowledgement, application, and waveform.

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